



OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/905,173

DATE: 05/20/2002  
TIME: 14:07:46

Input Set : A:\PTO.VSK.txt  
Output Set: N:\CRF3\05202002\I905173.raw

2 <110> APPLICANT: DIVERSA CORPORATION  
3 SHORT, Jay M.  
4 WARREN, Patrick V.  
5 SWANSON, Ronald V.  
6 MATHUR, Eric J.  
8 <120> TITLE OF INVENTION: ENZYMES HAVING TRANSAMINASE AND AMINOTRANSFERASE ACTIVITY  
AND METHODS OF  
9 USE THEREOF  
11 <130> FILE REFERENCE: DIVER1240-7  
13 <140> CURRENT APPLICATION NUMBER: US 09/905,173  
14 <141> CURRENT FILING DATE: 2001-07-12  
16 <150> PRIOR APPLICATION NUMBER: US 09/412,184  
17 <151> PRIOR FILING DATE: 1999-10-04  
19 <150> PRIOR APPLICATION NUMBER: US 09/389,537  
20 <151> PRIOR FILING DATE: 1999-09-02  
22 <150> PRIOR APPLICATION NUMBER: US 08/646,590  
23 <151> PRIOR FILING DATE: 1996-05-08  
25 <150> PRIOR APPLICATION NUMBER: US 08/599,171  
26 <151> PRIOR FILING DATE: 1996-02-09  
28 <150> PRIOR APPLICATION NUMBER: US 09/481,733  
29 <151> PRIOR FILING DATE: 2000-01-11  
31 <150> PRIOR APPLICATION NUMBER: US 09/069,226  
32 <151> PRIOR FILING DATE: 1998-04-27  
34 <160> NUMBER OF SEQ ID NOS: 40  
36 <170> SOFTWARE: PatentIn version 3.0  
38 <210> SEQ ID NO: 1  
39 <211> LENGTH: 52  
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43 <220> FEATURE:  
44 <223> OTHER INFORMATION: Primer for PCR  
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62 <210> SEQ ID NO: 3  
63 <211> LENGTH: 52  
64 <212> TYPE: DNA

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68 <223> OTHER INFORMATION: Primer for PCR
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88 <212> TYPE: DNA
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197 <213> ORGANISM: Artificial sequence
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208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial sequence
211 <220> FEATURE:

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233 <213> ORGANISM: Aquifex
235 <400> SEQUENCE: 17
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238 ttctctctcg ttaacgaact caagtacaag ctaaggcgtg aaggcgaaga tgtagtggat      120
240 cttggtatgg gcaatcctaa catgcctcca gcaaagcaca taatagataa actctgcgaa      180
242 gtggctcaaa agccgaacgt tcacggatat tctgcgtcaa ggggcatacc aagactgaga      240
244 aaggctatat gtaacttcta cgaagaaaag tacggagtga aactcgaccc tgagaggagg      300
246 gctatactaa caatcgggtgc aaaggaaggg tattctcatt tgatgcttgc gatgatattc      360
248 ccgggtgata cggtaatagt tcctaattccc acctatccta ttcaactatta cgctcccata      420
250 attgcaggag gggaagttca ctcaataccc cttaacttct cggacgatca agatcatcag      480
252 gaagagtttt taaggaggct ttacgagata gtaaaaaccg cgatgccaaa acccaaggct      540
254 gtcgtcataa gctttcctca caatccaacg accataacgg tagaaaagga cttttttaaa      600
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258 gatatagcct ttgacgggta caagcccccc tcaatactcg aaatagaagg tgctaaagac      720
260 gttgcgggtg agctctactc catgtcaaaag ggcttttcaa tggcgggctg gagggtagcc      780
262 tttgtcgttg gaaacgaaat actcataaaa aaccttgcac acctcaaaag ctacttggat      840
264 tacggtatat ttactcccat acaggtggcc tctattatcg cattagagag cccctacgaa      900
266 atcgtggaaa aaaccgcaaa ggtttaccaa aaaagaagag acgttctggt ggaagggtta      960
268 aacaggctcg gctggaaagt aaaaaaacct aaggctacca tgttcgtctg ggcaaagatt      1020
270 cccgaatgga taaatatgaa ctctctggac ttttccttgt tcctcctaaa agaggcgaag      1080
272 gttgcggtat ccccggtgtg gggcttttgt cagtacggag aggggtacgt aaggtttgca      1140
274 cttgtagaaa atgaacacag gatcagacag gctataaggg gaataaggaa agccttcaga      1200
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280 <211> LENGTH: 1122
281 <212> TYPE: DNA
282 <213> ORGANISM: Aquifex
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287 aagtacgaag acgtagtaca catggagata ggagagcccg atttagaacc gtctcccaag      120
289 gtaatggaag ctctggaacg tgcggtgaag gaaaagacgt tcttctacac cctgctctg      180
291 ggactctggg aactcaggga aaggatatcg gagttttaca ggaaaaagta cagcgttgaa      240
293 gtttctccag agagagtcac cgtaactacc ggaacttcgg gagcgtttct cgtagcctac      300
295 gccgtaacac taaatgcggg agagaagata atcctcccag acccctctta cccctgttac      360
297 aaaaactttg cctacctctt agacgctcag ccggttttcg taaacgttga caaggaaacg      420

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299 aattacgaag taaggaaaga gatgatagaa gacattgatg cgaaagccct tcacatttcc 480
301 tcgcctcaaa accctacggg cacactctac tcacctgaaa ccctgaagga acttgcgag 540
303 tactgcgaag agaagggtat gtacttcata tccgacgaga ttaccacgg actcgtttac 600
305 gaaggtaggg agcacacagc acttgagttc tctgacaggg ctattgtcat aaacgggttt 660
307 tctaagtact tctgtatgcc aggtttcagg atagggtgga tgatagttcc ggaagaactc 720
309 gtgagaaagg cggaatatag aattcagaac gtatttatat ctgccccgac gctcagtcag 780
311 tacgccgccc ttgaggcttt tgattacgag tatttgagga aggtaagaaa aacctttgaa 840
313 gagaggagga acttccttta tggggaactg aaaaaactct tcaagataga cgcgaaacct 900
315 caggagctt tttacgtatg ggcaaacata agtgattact ccacagatag ctacgaattt 960
317 gctttaaaac ttttaaggga ggcgaggggtg gcggtaacgc ccggggtgga ctttgaaaaa 1020
319 aacaaaacga aggagtatat aaggtttgct tatacgagaa agatagaaga acttaaggag 1080
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334 gtttacctgt gggacatata cggcaggaag tatatagatg ccatatcttc cctctggtgc 180
336 aacgtccacg gacataacca ccctaaactg aacaacgcag ttatgaaaca gctctgtaag 240
338 gtagctcaca caactactct gggaagttcc aacgttcccg ccatactcct tgcaaagaag 300
340 cttgtagaaa tttctcctga aggattaaac aaggtctttt actccgaaga cgggtcggaa 360
342 gcagtagaga tagcgataaa gatggcttat cactactgga agaacaaggg agttaaggg 420
344 aaaaacgttt tcataacgct ttccgaagcc taccacgggg atactgtagg agcgggttagc 480
346 gtagggggta tagaactctt ccacggaact tataaagatc tccttttcaa gactataaaa 540
348 ctcccatctc cttacctgta ctgcaaggaa aagtacgggg aactctgccc tgagtgcacg 600
350 gcagatttat taaaacaact ggaagatate ctgaagtcgc gggaagatat cgttgcggtc 660
352 attatggaag cgggaattca ggcagccgcg ggaatgctcc cttccctcc gggatttttg 720
354 aaaggcgtaa gggagcttac gaagaaatac gacactttaa tgatagttga cgaggttgcc 780
356 acgggatttg gcaggacggg aacgatgttt tactgtgagc aggaaggagt cagtcggagc 840
358 tttatgtgtc taggtaaggg tataaccgga gggtaacctc cgcttgctgc gacactcaca 900
360 acggacgagg tgttcaatgc ctttttaggt gagttcgggg aggcaaagca cttttaccac 960
362 gggcacacct acactgaaa taacctcgcc tgttcggttg cactcgcaaa cttagaagtt 1020
364 tttgaggaag aaagaacttt agagaagctc caaccaaaga taaagctttt aaaggaaagg 1080
366 cttcaggagt tctgggaact caagcacgtt ggagatgtta gacagctagg ttttatggct 1140
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370 ggatttaagg tggcttacia gtgcagggaa aaaggggtgt ttttgagacc gctcggagac 1260
372 gttatggtat tgatgatgcc tcttgtaata gaggaagacg aaatgaacta cgttattgat 1320
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385 gtttacctgt acgatgagga aggaaaggag tatcttgact ttgtctccgg tataggcgctc 120
387 aactccctcg gtcacgctta cccaaaactc acagaagctc taaaagaaca ggttgagaaa 180
389 ctccctccacg tttcaaactt ttacgaaaac ccgtggcagg aagaactggc tcacaaaact 240

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RAW SEQUENCE LISTING ERROR SUMMARY  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:35; N Pos. 986  
Seq#:36; Xaa Pos. 329

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 8